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Re:	Application No. 10/042,631	Pages:	47 INCLUDING COVER

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IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Citation of Prior Art Under 35 U.S.C. § 301 and 37 CFR 1.501

In re patent application of
Thierry R. Sanglerat, et al.

Application No. 10/042,631

Filed: January 11, 2002

For: Method and system for protecting buildings from subsurface gases

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To the Honorable Commissioner of Patents and Trademarks:

We hereby submit the following prior art publications (including copies thereof) which are pertinent to the patent application listed above and which are relevant to the patentability of claims 1-11 thereof:

1. Stearns, R. and Petoyan, G. "Active Systems for Landfill Gas Control." *Public Works.* April 1982. 42-44. ("**Stearns**")
2. Mitchell, G. "Landfill Gas Poses Shelter Hazard." *Shelter Sense.* February 1984. 5-7. ("**Mitchell**")
3. Nealon, G. and Hanson, D. "A New Public Works Complex on an Old Landfill." *Public Works.* April 1991. 46-47. ("**Nealon**")
4. Conrad, E.T. and Luce, R. "Remedial Actions to Mitigate Against Radon Migration into Structures." *Presented at National Science Week Regional Symposium: Indoor Radon in the Mid-Atlantic States.* Fairfax, Virginia. May 1986. 1-14 (in attachment). ("**Conrad**")
5. Fournier, J. "Geosynthetic Biogas Barriers Under Buildings." *Geotechnical Fabrics Report.* October/November 2000. 30-33. ("**Fournier**")
6. Peterson, E., Gardner, R. and Foxwell, P. "Landfill Gas Issues Affecting the Design and Operation of Waste to Energy Facilities." *Air and Waste Management Association Proceedings: 2nd International Conference on Municipal Waste Combustion.* April 1991. 427-438. (1-12 in attachment) ("**Peterson**")

Each of these references discloses a method for extracting subterranean gases using perforated or slotted conduits installed in an air permeable bed (or, in one case, trench) of materials, such as gravel, located under structures. The methods involve an active system for drawing gases into the conduits using a blower (or device having a similar function) and exhausting them to ambience. One of these methods mentions flaring gases (a form of treatment). One of the references expressly mentions interconnection of pipes in a manifold; others imply the use of a manifold. Some of these references also discuss the active or passive injection of air as a separate method or as a method used in conjunction with the extraction process.

Stearns discloses an active venting system for extracting air and entrained gases. [p. 44, column 3] The system consists of a network of perforated conduits connected by header pipes (i.e. a manifold) to a blower where the gas is exhausted to ambience or, in some cases with landfill gas,

flared. Stearns also discloses an active gas injection system whereby air is drawn from ambience and injected into a network of perforated conduits. Both systems disclosed are installed in a gravel bed beneath the floor slabs of structures. We believe that this reference has a bearing on the patentability of at least claims 2, 4, 5, 6, 7, 8, 9, 10 and 11.

Mitchell discloses an active (using gravity-type ventilator) gas extraction system consisting of ventilation pipes (perforated conduits) installed in trenches filled with gravel and located beneath the floor slab of a structure. [p. 7, first paragraph and figure 2] The system draws air from ambience into the perforated conduits beneath the structure. We believe that this reference has a bearing on the patentability of at least claims 1, 2, 3, 4, 5, 7, 8, 9, 10 and 11.

Nealon discloses a subslab active gas system consisting of, among other things, an interchange coupling of pipes that collects gas from a layer of smooth stones. [p. 47, column 1, second full paragraph] We believe that this reference has a bearing on the patentability of at least claims 2, 3, 4, 5, 7, 8, 9, 10 and 11.

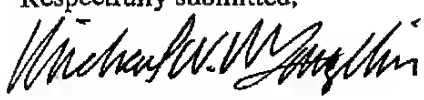
Conrad discloses an active venting system for extracting air and entrained gases. [pp. 10-11] The system consists of perforated pipe installed in a gravel base beneath the floor slab of a structure, and connected to a blower where the gas is exhausted to ambience. We believe that this reference has a bearing on the patentability of at least claims 2, 4, 5, 7, 8, 9, 10 and 11.

Fournier discloses a system of pipes embedded in granular material beneath the slab of the building and vented to ambience using vacuum pumps. [p. 32, columns 1 and 2] Fournier also mentions constantly flushing a gravel layer with air to control gas concentrations. [p. 30, column 3, item (1)] We believe that this reference has a bearing on the patentability of at least claims 2, 4, 5, 7, 8, 9, 10 and 11.

Peterson discloses an active venting system for extracting air and entrained gases. [pp. 7-9] The system consists of a plurality of vent pipes (perforated conduits) installed in a permeable layer of crushed stone or gravel and connected to a blower where the gas is exhausted. Peterson also discloses using the extraction system *in conjunction with* an active or passive system for injecting air from ambience. We believe that this reference has a bearing on the patentability of at least claims 1, 2, 3, 5, 7, 8, 9, 10 and 11.

Peterson anticipates the claimed invention in that a person skilled in the art could take Peterson's teachings in combination with his own knowledge of the art and be in possession of the invention. Moreover, based on the cited publications, claims 1-11 clearly are obvious.

Respectfully submitted,



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February 13, 2004

Certificate of Service

I hereby certify that a true and correct copy of the above Submission of Prior Art was mailed on February 13, 2004 by first-class mail, postage paid, to:

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